DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-015494
Date Inspected: 07-Jul-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name:	N/A			**CWI Present:**	☑ Yes	☐ No		
Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A	
Electrode to specification:	☐ Yes	☐ No	☑ N/A	**Weld Procedures Followed:**	☐ Yes	☐ No	☑ N/A	
Qualified Welders:	☐ Yes	☐ No	☑ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A	
Approved Drawings:	☐ Yes	☐ No	☑ N/A	**Approved WPS:**	☐ Yes	☐ No	☑ N/A	
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A	

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 8AE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel at Panel Points (PP) 61, PP 62, PP 63 and PP 64 for Segment 8AE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00411 dated July 07, 2010.

The bolt sizes used were M22 x 120 RC Lot # DHGM220053 and the final torque value established was 440 N-m.

The bolt sizes used were M22 x 160 RC Lot# DHGM220006 and the final torque value established was 340 N-m.

The manual torque wrench used to verify tension was S/N XQ2-666.

Segment 8BE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel at Panel Points (PP) 65, PP 66 and PP 67 for Segment 8BE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00411 dated July 07, 2010.

The bolt sizes used were M22 x 120 RC Lot # DHGM220053 and the final torque value established was 440 N-m.

The bolt sizes used were M22 x 160 RC Lot# DHGM220006 and the final torque value established was 340 N-m.

The manual torque wrench used to verify tension was S/N XQ2-666.

Segment 8CE

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel at Panel Points (PP) 68, PP 69, PP 70 and PP 71 for Segment 8CE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00411 dated July 07, 2010.

The bolt sizes used were M22 x 120 RC Lot # DHGM220053 and the final torque value established was 440 N-m.

The bolt sizes used were M22 x 160 RC Lot# DHGM220006 and the final torque value established was 340 N-m.

The manual torque wrench used to verify tension was S/N XQ2-666. Please reference the pictures attached for more comprehensive details.

Segment 7BW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at Panel Points (PP) 50, PP 51 and PP 53 for Segment 7BW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00412 dated July 07, 2010.

The bolt sizes used were M22 x 65 RC Lot # DHGM240002 and the final torque value established was 573 N-m.

The manual torque wrench used to verify tension was S/N XQ2-676. Please reference the pictures attached for more comprehensive details.

Segment 7DW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at Panel Points (PP) 56, PP 57 and PP 58 for Segment 7DW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00412 dated July 07, 2010.

The bolt sizes used were M22 x 65 RC Lot # DHGM240002 and the final torque value established was 573 N-m.

The manual torque wrench used to verify tension was S/N XQ2-676.

Segment 11DW

This QA Inspector performed Green Tag Dimension Control Inspection along with Caltrans QA Inspector Mr. Manoj Prabhune for the Segment 11DW from Panel Point (PP) 103.75 to PP 106.75 at the following locations:

The Floor Beam (FB) flatness was verified and measured from East and West side of the FB at Panel Points (PP) 104, PP 105 and PP 106. The QA Inspector measured the flatness using 1500mm Straight Edge.

The Deck Panel to the Deck Panel Diaphragm plate plumbness and flatness was verified and measured from east and west side of the Deck Panel Diaphragm at Panel Points (PP) 104, PP 105 and PP 106. The QA Inspector measured the plumbness using carpenter square and performed a flatness check using 710mm Straight Edge.

The vertical offset and horizontal offset was verified and measured from Work Point W6 towards Work Point W4 at Side Panel (SP) FL3 location Cross Beam (CB) Side, T-Ribs to T-Ribs at Panel Points (PP) 104, PP 105 and PP 106. The QA Inspector measured the Vertical Offset on the T-Rib flange using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

The skin flatness was verified and measured across the longitudinal butt weld at Side Panel (SP) to Corner Assembly (CA) at the Cross Beam (CB) and Counter Weight (CW) side from Panel Point (PP) 103.75 to PP 106. 75. The QA Inspector measured the skin flatness using 600mm Straight Edge.

The skin flatness was verified and measured across the longitudinal butt weld at Deck Panel (DP) to Corner Assembly (CA) at the Cross Beam (CB) and Counter Weight (CW) side from Panel Point (PP) 103.75 to PP 106. 75. The QA Inspector measured the skin flatness using 600mm Straight Edge.

The diameter of the cope holes at the Corner Assembly (CA) were verified and measured at Panel Points (PP) 104, PP 104.5, PP 105, PP 105.5, PP 106 and PP 106.5 at the Cross Beam (CB) and Counter Weight (CW) side. The QA Inspector measured the diameter of the cope holes using a 150mm steel ruler.

The protrusion of the Deck Panel (DP) stiffener inside cope holes area at the Corner Assembly (CA) were verified and measured at the Panel Points (PP) 104, PP 104.5, PP 105, PP 105.5, PP 106 and PP 106.5 at the Cross Beam (CB) and Counter Weight (CW) side. The QA Inspector measured the protrusion of stiffener using a 150mm steel ruler.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

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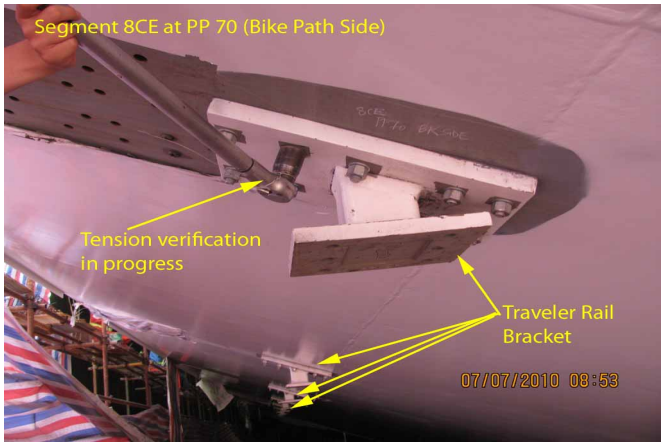

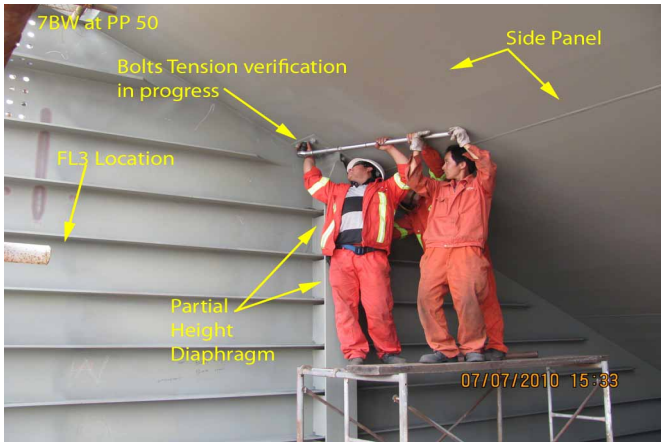

Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer